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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,091	12/31/2001	Takanari Takagaki	110983	5867
25944	7590	12/11/2003	EXAMINER	
OLIFF & BERRIDGE, PLC			GREENE, JASON M	
P.O. BOX 19928			ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22320			1724	

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/032,091	TAKAGAKI, TAKANARI	
	Examiner	Art Unit	
	Jason M. Greene	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-23 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 8 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Response to Arguments

1. Applicant's arguments with respect to claims 1-7 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. in view of Schneider et al. or Published International Application WO 00/18489.

With regard to claim 1, Nakayama et al. discloses a filter (100) comprising a filter body (120) and a seal member (200 or 210) attached to a peripheral edge portion of the filter body, wherein the filter body and the seal member are separate members, and the

peripheral edge portion of the filter body is a flange (140) in Figs. 19A-20 and col. 10, lines 28-58.

Nakayama et al. does not disclose the seal member being attached to the filter body by being fused to fibers that form the filter body when the fibers are in a semi-molten state.

Schneider et al. discloses a filter comprising a filter body (2) and a seal member (5) fused to a peripheral edge portion of the filter body, by being fused to fibers that form the filter body when the fibers are in a semi-melted state in Fig. 2 and col. 2, lines 1-59. Since Schneider et al. discloses the fibers forming the filter body and the seal member being partially melted and welded together, the seal member is seen as being fused to fibers that form the filter body when the fibers are in a semi-melted state.

WO 00/18489 discloses a filter comprising a filter body (2) and a seal member (5) fused to a peripheral edge portion of the filter body, by being fused to fibers that form the filter body when the fibers are in a semi-melted state in Fig. 2 and lines 1-4 of the English language abstract. Since the fibers forming the filter body and the seal member are partially melted and welded together, the seal member is seen as being fused to fibers that form the filter body when the fibers are in a semi-melted state.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the heat welding of Schneider et al. or WO 00/18489 into the filter of Nakayama et al. to provide a reliable connection between the seal member and the filter body by liquefying the two components and allowing them to melt together, as suggested by Schneider et al. in col. 2, lines 31-38.

With regard to claim 2, Nakayama et al. discloses the seal member (200 or 210) having an engaging portion (not numbered, portion of the seal member which melts during the welding process) that engages with the semi-melted fibers in Figs. 19A-20 and col. 10, lines 28-58.

4. Claims 3-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Published patent Application JP 8-38834 in view of Nakayama et al. and Schneider et al. or Published International Application WO 00/18489.

With regard to claim 3, JP 8-38834 discloses a filter comprising a filter body formed by layering semi-melted fibers (13) over a forming surface (2,11,12), wherein a peripheral edge portion of the filter body is a flange (153) in Figs. 1-7 and page 1, line 1 to page 6, line 36 of the English language translation.

JP 8-38834 does not explicitly disclose a seal member being fused to the peripheral edge portion of the filter body by being fused to fibers that form the filter body when the fibers in a semi-molten state, wherein the filter body and the seal member are separate members.

Nakayama et al. discloses a similar filter (100) comprising a filter body (120) and a seal member (200 or 210) attached to a peripheral edge portion of the filter body, wherein the filter body and the seal member are separate members, and the peripheral edge portion of the filter body is a flange (140) in Figs. 19A-20 and col. 10, lines 28-58.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the separate seal member of Nakayama et al. into the filter of JP 8-38834 to provide a seal member having an excellent sealing property, as suggested by Nakayama et al. in col. 10, lines 28-58.

Schneider et al. discloses a filter comprising a filter body (2) and a seal member (5) fused to a peripheral edge portion of the filter body, by being fused to fibers that from the filter body when the fibers are in a semi-melted state in Fig. 2 and col. 2, lines 1-59. Since Schneider et al. discloses the fibers forming the filter body and the seal member being partially melted and welded together, the seal member is seen as being fused to fibers that form the filter body when the fibers are in a semi-melted state.

WO 00/18489 discloses a filter comprising a filter body (2) and a seal member (5) fused to a peripheral edge portion of the filter body, by being fused to fibers that from the filter body when the fibers are in a semi-melted state in Fig. 2 and lines 1-4 of the English language abstract. Since the fibers forming the filter body and the seal member are partially melted and welded together, the seal member is seen as being fused to fibers that form the filter body when the fibers are in a semi-melted state.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the heat welding of Schneider et al. or WO 00/18489 into the filter of JP 8-38834 and Nakayama et al. to provide a reliable connection between the seal member and the filter body by liquefying the two components and allowing them to melt together, as suggested by Schneider et al. in col. 2, lines 31-38.

With regard to claim 4, Nakayama et al. discloses the seal member having an engaging portion (not numbered, portion of the seal member which melts during the welding process) that engages with the semi-melted fibers in Fig. 18 and col. 10, lines 28-58.

With regard to claim 5, JP 8-38834 discloses at least a portion (12) of the forming surface being formed by a member that is fusable to the semi-melted fibers in page 4, lines 6-12 of the English language translation. Since the upper portion of the forming surface (12) is a nonwoven fabric formed from polyester, the polyester semi-melted fibers are seen as being fusable to at least a portion of the forming surface.

With regard to claim 6, JP 8-38834 discloses the filter body including a filtering portion (11,12,13) and the member fusable (12) to the semi-melted fibers forming a portion of the filtering portion in page 1, line 1 to page 6, line 36 of the English language translation.

With regard to claim 7, JP 8-38834 discloses the member (12) fusable to the semi-melted fibers being a non-woven fabric in page 4, lines 6-12 of the English language translation.

With regard to claim 9, JP 8-38834 discloses at least a portion of the forming surface being a forming surface of a die (2) for forming the filter in page 1, line 1 to page 6, line 36 of the English language translation.

Allowable Subject Matter

5. Claims 11-23 are allowed.
6. Claims 8 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art made of record does not teach or fairly suggest the filter of claim 21 wherein the seal member has inner and outer peripheral surfaces, and the semi-melted fibers being fused to the inner and outer peripheral surfaces of the seal member.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (703) 308-6240. The examiner can normally be reached on Tuesday - Friday (7:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (703) 308-1261. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jason M. Greene
Examiner
Art Unit 1724



jmg
December 3, 2003

DUANE SMITH
PRIMARY EXAMINER

D - A
12-5-03